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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/763,398

DATE: 08/03/2004

TIME: 14:31:53

Input Set : D:\443c1.app.txt

Output Set: N:\CRF4\08032004\J763398.raw

4 <110> APPLICANT: Anderson, Christen M.
 5 Carroll, Amy Karen
 8 <120> TITLE OF INVENTION: PRODUCTION OF ADENINE NUCLEOTIDE
 9 TRANSLOCATOR (ANT), NOVEL ANT LIGANDS
 10 AND SCREENING ASSAYS THEREFOR
 12 <130> FILE REFERENCE: 660088.443C1
 14 <140> CURRENT APPLICATION NUMBER: US 10/763,398
 15 <141> CURRENT FILING DATE: 2004-01-23
 17 <150> PRIOR APPLICATION NUMBER: 09/569,327
 18 <151> PRIOR FILING DATE: 2000-05-11
 20 <150> PRIOR APPLICATION NUMBER: PCT/US99/25883
 21 <151> PRIOR FILING DATE: 1999-11-03
 23 <150> PRIOR APPLICATION NUMBER: 09/393,441
 24 <151> PRIOR FILING DATE: 1999-09-08
 26 <150> PRIOR APPLICATION NUMBER: 09/185,904
 27 <151> PRIOR FILING DATE: 1998-11-03
 29 <160> NUMBER OF SEQ ID NOS: 20
 31 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 33 <210> SEQ ID NO: 1
 34 <211> LENGTH: 894
 35 <212> TYPE: DNA
 36 <213> ORGANISM: Homo sapiens
 38 <400> SEQUENCE: 1
 39 atgggtgatc acgcttgag cttcctaaag gacttcttgg ccggggcggt cgccgctgcc 60
 40 gtctccaaga ccgcggtcgc ccccatcgag aggggtcaaac tgctgctgca ggtccagcat 120
 41 gccagcaaac agatcagtg tgagaagcag tacaaaggga tcattgattg tgtggtgaga 180
 42 atccctaagg agcagggctt cctctccttc tggaggggta acctggccaa cgtgatccgt 240
 43 tacttcccca cccaagctct caacttcgcc ttcaaggaca agtacaagca gctcttctta 300
 44 ggggggtgtg atcggcataa gcagttcttg cgctactttg ctggtaacct gccgtccggt 360
 45 ggggccgctg gggccacctc cctttgcttt gtctaccgcg tggactttgc taggaccagg 420
 46 ttggctgctg atgtgggcag gcgcgccag cgtgagttcc atggtctggg cgactgtatc 480
 47 atcaagatct tcaagtctga tggcctgagg gggctctacc agggtttcaa cgtctctgtc 540
 48 caaggcatca ttatctatag agctgcctac ttcggagtct atgatactgc caaggggatg 600
 49 ctgcctgacc ccaagaacgt gcacattttt gtgagctgga tgattgcccc gagtgtgacg 660
 50 gcagtcgcag ggctgctgtc ctaccctttt gacactgttc gtcgtagaat gatgatgcag 720
 51 tccggccgga aagggggcga tattatgtac acggggacag ttgactgctg gaggaagatt 780
 52 gcaaaagacg aaggagccaa ggccttcttc aaagggtgcct ggtccaatgt gctgagaggc 840
 53 atgggcggtg cttttgtatt ggtgtgtgat gatgagatca aaaaatatgt ctaa 894
 55 <210> SEQ ID NO: 2
 56 <211> LENGTH: 897
 57 <212> TYPE: DNA
 58 <213> ORGANISM: Homo sapiens
 60 <400> SEQUENCE: 2



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61 atgacagatg ccgctgtgtc cttcgccaag gacttcctgg cagggtggagt ggccgcagcc 60
62 atctccaaga cggcggtagc gcccatcgag cgggtcaagc tgctgctgca ggtgcagcat 120
63 gccagcaagc agatcactgc agataagcaa tacaaaggca ttatagactg cgtgggtccgt 180
64 attcccaagg agcaggaagt tctgtccttc tggcgcggtg acctggccaa tgtcatcaga 240
65 tacttcccca cccaggctct taacttcgcc ttcaaagata aatacaagca gatcttctctg 300
66 ggtggtgtgg acaagagaac ccagtttttg ctctactttg cagggaatct ggcacgggt 360
67 ggtgcgcgag gggccacatc cctgtgtttt gtgtaccctc ttgattttgc ccgtaccctg 420
68 ctagcagctg atgtgggtaa agctggagct gaaagggagt tccgaggcct cggtgactgc 480
69 ctggttaaga tctacaaatc tgatgggatt aagggcctgt accaaggctt taacgtgtct 540
70 gtgcagggta ttatcatcta ccgagccgcc tacttcggta tctatgacac tgcaaaggga 600
71 atgcttccgg atcccaagaa cactcacatc gtcacagct ggatgatcgc acagactgtc 660
72 actgctgttg ccgggttgac ttcctatcca ttgacactg ttcgccgcgc catgatgatg 720
73 cagtcagggc gcaaaggaaac tgacatcatg tacacaggca cgcttgactg ctggcggaag 780
74 attgctcgtg atgaaggagg caaagctttt ttcaagggtg catggtccaa tgttctcaga 840
75 ggcattgggtg gtgcttttgt gcttgtcttg tatgatgaaa tcaagaagta cacataa 897

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77 <210> SEQ ID NO: 3

78 <211> LENGTH: 897

79 <212> TYPE: DNA

80 <213> ORGANISM: Homo sapiens

82 <400> SEQUENCE: 3

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83 atgacggaac aggccatctc cttcgccaaa gacttcttgg ccggaggcat cgccgccgcc 60
84 atctccaaga cggcggtagc gcccatcgag cgggtcaagc tgctgctgca ggtccagcac 120
85 gccagcaagc agatcggcgc cgacaagcag tacaagggca tcgtggactg cattgtccgc 180
86 atccccaagg agcagggcgt gctgtccttc tggaggggca accttgccaa cgtcattcgc 240
87 tacttcccca ctcaagccct caacttcgcc ttcaaaggata agtacaagca gatcttctctg 300
88 gggggcgtgg acaagcacac gcagttcttg aggtactttg cgggcaacct ggctccggc 360
89 ggtgcggccg gcgcgacctc cctctgtctt gtgtaccgcg tggattttgc cagaaccgcg 420
90 ctggcagcgg acgtgggaaa gtcaggcaca gacgcgagc tccgaggcct gggagactgc 480
91 ctggtgaaga tcaccaagtc cgacggcatc cggggcctgt accagggtt cagtgtctcc 540
92 gtgcagggca tcatcatcta ccgggcggcc tacttcggcg tgtacgatac ggccaagggc 600
93 atgctccccg accccaagaa cacgcacatc gtggtgagct ggatgatcgc gcagaccgtg 660
94 acggcgcgtg ccggcgtggt gtcctacccc ttcgacacgg tgcggcgcg catgatgatg 720
95 cagtcggggc gcaaaggagc tgacatcatg tacacgggca ccgtcgactg ttggaggaag 780
96 atcttcagag atgagggggg caaggccttc ttcaagggtg cgtggtccaa cgtcctgcgg 840
97 ggcattggggg gcgccttcgt gctggtcctg tacgacgagc tcaagaaggt gatctaa 897

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99 <210> SEQ ID NO: 4

100 <211> LENGTH: 297

101 <212> TYPE: PRT

102 <213> ORGANISM: Homo sapiens

104 <400> SEQUENCE: 4

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105 Met Gly Asp His Ala Trp Ser Phe Leu Lys Asp Phe Leu Ala Gly Ala
106 1 5 10 15
107 Val Ala Ala Ala Val Ser Lys Thr Ala Val Ala Pro Ile Glu Arg Val
108 20 25 30
109 Lys Leu Leu Leu Gln Val Gln His Ala Ser Lys Gln Ile Ser Ala Glu
110 35 40 45
111 Lys Gln Tyr Lys Gly Ile Ile Asp Cys Val Val Arg Ile Pro Lys Glu
112 50 55 60
113 Gln Gly Phe Leu Ser Phe Trp Arg Gly Asn Leu Ala Asn Val Ile Arg

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114 65          70          75          80
115 Tyr Phe Pro Thr Gln Ala Leu Asn Phe Ala Phe Lys Asp Lys Tyr Lys
116          85          90          95
117 Gln Leu Phe Leu Gly Gly Val Asp Arg His Lys Gln Phe Trp Arg Tyr
118          100          105          110
119 Phe Ala Gly Asn Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu
120          115          120          125
121 Cys Phe Val Tyr Pro Leu Asp Phe Ala Arg Thr Arg Leu Ala Ala Asp
122          130          135          140
123 Val Gly Arg Arg Ala Gln Arg Glu Phe His Gly Leu Gly Asp Cys Ile
124 145          150          155          160
125 Ile Lys Ile Phe Lys Ser Asp Gly Leu Arg Gly Leu Tyr Gln Gly Phe
126          165          170          175
127 Asn Val Ser Val Gln Gly Ile Ile Ile Tyr Arg Ala Ala Tyr Phe Gly
128          180          185          190
129 Val Tyr Asp Thr Ala Lys Gly Met Leu Pro Asp Pro Lys Asn Val His
130          195          200          205
131 Ile Phe Val Ser Trp Met Ile Ala Gln Ser Val Thr Ala Val Ala Gly
132          210          215          220
133 Leu Leu Ser Tyr Pro Phe Asp Thr Val Arg Arg Arg Met Met Met Gln
134 225          230          235          240
135 Ser Gly Arg Lys Gly Ala Asp Ile Met Tyr Thr Gly Thr Val Asp Cys
136          245          250          255
137 Trp Arg Lys Ile Ala Lys Asp Glu Gly Ala Lys Ala Phe Phe Lys Gly
138          260          265          270
139 Ala Trp Ser Asn Val Leu Arg Gly Met Gly Gly Ala Phe Val Leu Val
140          275          280          285
141 Leu Tyr Asp Glu Ile Lys Lys Tyr Val
142          290          295
145 <210> SEQ ID NO: 5
146 <211> LENGTH: 298
147 <212> TYPE: PRT
148 <213> ORGANISM: Homo sapiens
150 <400> SEQUENCE: 5
151 Met Thr Asp Ala Ala Val Ser Phe Ala Lys Asp Phe Leu Ala Gly Gly
152 1          5          10          15
153 Val Ala Ala Ala Ile Ser Lys Thr Ala Val Ala Pro Ile Glu Arg Val
154          20          25          30
155 Lys Leu Leu Leu Gln Val Gln His Ala Ser Lys Gln Ile Thr Ala Asp
156          35          40          45
157 Lys Gln Tyr Lys Gly Ile Ile Asp Cys Val Val Arg Ile Pro Lys Glu
158          50          55          60
159 Gln Glu Val Leu Ser Phe Trp Arg Gly Asn Leu Ala Asn Val Ile Arg
160 65          70          75          80
161 Tyr Phe Pro Thr Gln Ala Leu Asn Phe Ala Phe Lys Asp Lys Tyr Lys
162          85          90          95
163 Gln Ile Phe Leu Gly Gly Val Asp Lys Arg Thr Gln Phe Trp Leu Tyr
164          100          105          110
165 Phe Ala Gly Asn Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu

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166      115      120      125
167 Cys Phe Val Tyr Pro Leu Asp Phe Ala Arg Thr Arg Leu Ala Ala Asp
168      130      135      140
169 Val Gly Lys Ala Gly Ala Glu Arg Glu Phe Arg Gly Leu Gly Asp Cys
170 145      150      155      160
171 Leu Val Lys Ile Tyr Lys Ser Asp Gly Ile Lys Gly Leu Tyr Gln Gly
172      165      170      175
173 Phe Asn Val Ser Val Gln Gly Ile Ile Ile Tyr Arg Ala Ala Tyr Phe
174      180      185      190
175 Gly Ile Tyr Asp Thr Ala Lys Gly Met Leu Pro Asp Pro Lys Asn Thr
176      195      200      205
177 His Ile Val Ile Ser Trp Met Ile Ala Gln Thr Val Thr Ala Val Ala
178      210      215      220
179 Gly Leu Thr Ser Tyr Pro Phe Asp Thr Val Arg Arg Arg Met Met Met
180 225      230      235      240
181 Gln Ser Gly Arg Lys Gly Thr Asp Ile Met Tyr Thr Gly Thr Leu Asp
182      245      250      255
183 Cys Trp Arg Lys Ile Ala Arg Asp Glu Gly Gly Lys Ala Phe Phe Lys
184      260      265      270
185 Gly Ala Trp Ser Asn Val Leu Arg Gly Met Gly Gly Ala Phe Val Leu
186      275      280      285
187 Val Leu Tyr Asp Glu Ile Lys Lys Tyr Thr
188      290      295
191 <210> SEQ ID NO: 6
192 <211> LENGTH: 298
193 <212> TYPE: PRT
194 <213> ORGANISM: Homo sapiens
196 <400> SEQUENCE: 6
197 Met Thr Glu Gln Ala Ile Ser Phe Ala Lys Asp Phe Leu Ala Gly Gly
198 1      5      10      15
199 Ile Ala Ala Ala Ile Ser Lys Thr Ala Val Ala Pro Ile Glu Arg Val
200      20      25      30
201 Lys Leu Leu Leu Gln Val Gln His Ala Ser Lys Gln Ile Ala Ala Asp
202      35      40      45
203 Lys Gln Tyr Lys Gly Ile Val Asp Cys Ile Val Arg Ile Pro Lys Glu
204      50      55      60
205 Gln Gly Val Leu Ser Phe Trp Arg Gly Asn Leu Ala Asn Val Ile Arg
206 65      70      75      80
207 Tyr Phe Pro Thr Gln Ala Leu Asn Phe Ala Phe Lys Asp Lys Tyr Lys
208      85      90      95
209 Gln Ile Phe Leu Gly Gly Val Asp Lys His Thr Gln Phe Trp Arg Tyr
210      100      105      110
211 Phe Ala Gly Asn Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu
212      115      120      125
213 Cys Phe Val Tyr Pro Leu Asp Phe Ala Arg Thr Arg Leu Ala Ala Asp
214      130      135      140
215 Val Gly Lys Ser Gly Thr Glu Arg Glu Phe Arg Gly Leu Gly Asp Cys
216 145      150      155      160
217 Leu Val Lys Ile Thr Lys Ser Asp Gly Ile Arg Gly Leu Tyr Gln Gly

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```

218          165          170          175
219 Phe Ser Val Ser Val Gln Gly Ile Ile Ile Tyr Arg Ala Ala Tyr Phe
220          180          185          190
221 Gly Val Tyr Asp Thr Ala Lys Gly Met Leu Pro Asp Pro Lys Asn Thr
222          195          200          205
223 His Ile Val Val Ser Trp Met Ile Ala Gln Thr Val Thr Ala Val Ala
224          210          215          220
225 Gly Val Val Ser Tyr Pro Phe Asp Thr Val Arg Arg Arg Met Met Met
226 225          230          235          240
227 Gln Ser Gly Arg Lys Gly Ala Asp Ile Met Tyr Thr Gly Thr Val Asp
228          245          250          255
229 Cys Trp Arg Lys Ile Phe Arg Asp Glu Gly Gly Lys Ala Phe Phe Lys
230          260          265          270
231 Gly Ala Trp Ser Asn Val Leu Arg Gly Met Gly Gly Ala Phe Val Leu
232          275          280          285
233 Val Leu Tyr Asp Glu Leu Lys Lys Val Ile
234          290          295
237 <210> SEQ ID NO: 7
238 <211> LENGTH: 43
239 <212> TYPE: DNA
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: primer used for human ANT1 amplification
245 <400> SEQUENCE: 7
246 ttatatctcg agtatgggtg atcacgcttg gagcttccta aag
248 <210> SEQ ID NO: 8
249 <211> LENGTH: 43
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial Sequence
253 <220> FEATURE:
254 <223> OTHER INFORMATION: Primer used for human ANT1 amplification
256 <400> SEQUENCE: 8
257 tatataggta ccttagacat attttttgat ctcatacat aac
259 <210> SEQ ID NO: 9
260 <211> LENGTH: 43
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Primer used for human ANT2 amplification
267 <400> SEQUENCE: 9
268 ttatatctcg agtatgacag atgccgctgt gtccttcgcc aag
270 <210> SEQ ID NO: 10
271 <211> LENGTH: 43
272 <212> TYPE: DNA
273 <213> ORGANISM: Artificial Sequence
275 <220> FEATURE:
276 <223> OTHER INFORMATION: Primer used for human ANT2 amplification
278 <400> SEQUENCE: 10
279 tatataggta ccttatgtgt acttcttgat ttcatacat aag

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VERIFICATION SUMMARY

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